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RATES OF MENTAL DISEASE AMONG CERTAIN POPULATION GROUPS IN NEW YORK STATE

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Considerable attention has been directed to the problem of the relative frequency of mental disease among native and foreign-born in the United States. Interest was centered, at first, upon the economic costs of mental disease, and the consequent burden imposed by the foreign element of the population. In recent years the eugenic argument has been superimposed upon the economic, and it has been set forth that immigrant populations not only have higher rates of mental disease than the native population, but that the differences are correlated with the racial compositions of the several groups.

Because of the importance of the problem, both economically and biologically, the present writer undertook a systematic analysis of the basic data, and showed that the differences in rates of mental disease between native and foreign-born whites in New York State are due primarily to variations in age composition.[1,2] 'Crude' rates for the two groups differ in the ratio of more than 2 to 1. Adjustment for the obvious age differences reduced the disparity, however, so that the rate of the foreign-born appeared in excess by only twenty per cent.[2] Another adjustment with respect to environmental factors—such as urban-rural distribution—reduced the difference in rates still further, so that the writer felt able to suggest that the remaining difference could easily be accounted for on the basis of environmental circumstances, rather than on the hypothesis of racial diversity between the two groups.[3] In the following note I wish to present additional data which enhance the probability of the environmental explanation.

In 1915 Dr. A. J. Rosanoff showed that during the biennial period ending June 30, 1910, native Californians had an admission rate to institutions for mental disease of 70.7 per 100,000 corresponding general population. Residents of California who had migrated from New York State had a corresponding rate of 183.8, the latter being in excess in the ratio of 2.6 to 1.[4] Since these were all native-born Americans,

[1] Benjamin Malzberg, "Mental Disease and the Melting Pot," *Journal of Nervous and Mental Disease*, Vol. 72, No. 4, October, 1930.

[2] Benjamin Malzberg, "Mental Disease in New York State According to Nativity and Parentage," *Mental Hygiene*, Vol. 19, No. 4, October, 1935.

[3] Benjamin Malzberg, "Mental Disease Among Native and Foreign-born Whites in New York State," to be published in *American Journal of Psychiatry*.

[4] A. J. Rosanoff, "Some Neglected Phases of Immigration," *American Journal of Insanity*, Vol. 72, July, 1915.

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the racial factor was presumably constant, and Dr. Rosanoff therefore concluded that the differences in rates of mental disease must be due to the social and economic factors which are associated with migration.

It is possible to present a similar analysis for New York State on a larger scale. During the three fiscal years ending June 30, 1931, there were admitted to all institutions for mental disease in New York State a total of 15,704 native white first admissions. Of these 10,316, or 65.7 per cent, were born in New York State, and 5,388, or 34.3 per cent, were born elsewhere in the United States. The former had an average annual rate of first admissions of 44.6 per 100,000 corresponding general population. The latter had a rate of 156.9, which exceeded the former rate in the ratio of 3.5 to 1.

TABLE I

NUMBER OF NATIVE WHITE FIRST ADMISSIONS TO ALL HOSPITALS FOR MENTAL DISEASES IN NEW YORK STATE, 1929–1931

Psychoses	Number		Average annual rate per 100,000 general population	
	Born in New York State	Born in other States	Born in New York State	Born in other States
With cerebral arteriosclerosis	1,252	705	5.4±0.2	20.5±0.9
General paresis	881	524	3.8±0.1	15.3±0.8
Alcoholic	512	327	2.2±0.1	9.5±0.6
Manic-depressive	1,344	797	5.8±0.2	23.2±0.9
Dementia praecox	2,894	1,392	12.5±0.3	40.5±1.3
All psychoses	10,316	5,388	44.6±0.5	156.9±2.4

Of the native white population resident in the State of New York on April 1, 1930, 49.9 per cent were of native parentage, and 50.1 per cent of foreign or mixed parentage. We have no separate data for those resident in New York State on April 1, 1930, who came from other states, but it is reasonable to assume that they approximate to the distribution for the entire country with respect to parentage. Of the latter group, 73.4 per cent of the native whites were of native parentage, and only 26.6 per cent of foreign or mixed parentage.[5] It has been shown that natives of native parentage have lower 'crude' rates of mental disease than natives of foreign or mixed parentage.[6] Consequently residents of New York State born in other states should have had a lower rate of first admissions than natives of New York State, other things being equal. Nevertheless, the latter had a decidedly lower 'crude' rate. The conclusion must be drawn that the dominant factor was not racial composition, but the difficulties of social and economic adjustment associated with migration.

Table I gives rates of first admissions for several of the more important groups of psychoses.

[5] From *Fifteenth Census of the United States, 1930*, Vol. II, page 36.

[6] See reference (2) above.

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In connection with each group of psychoses, white residents of New York State, born in other States, had a rate greatly in excess of that of the group born in New York State. Among the psychoses with cerebral arteriosclerosis the rates were in the ratio of 3.8 to 1. In general paresis and the manic-depressive psychoses, the rates were in the ratio of 4.0 to 1. Those born in other states had a rate of first admissions with dementia praecox in excess in the ratio of 3.2 to 1. The greatest disparity occurred in connection with the alcoholic psychoses. Those born in other states had a rate in excess in the ratio of 4.3 to 1.

The rates included in Table I are 'crude' rates. Owing to the absence of census data with respect to the age composition of the two groups it is impossible to prepare standardized rates of first admissions. However it is unlikely that age is the determining factor in the production of the differences, as may be seen from the data in Table II.

TABLE II

AGE CONSTANTS OF THE NATIVE WHITE FIRST ADMISSIONS TO ALL INSTITUTIONS FOR MENTAL DISEASE IN NEW YORK STATE, 1929–1931

Psychoses	Born in New York State		Born in other States	
	Average age (years)	Standard deviation (years)	Average age (years)	Standard deviation (years)
With cerebral arteriosclerosis	67.6±0.1	9.4±0.1	65.5±0.2	9.3±0.1
General paresis	43.9±0.3	11.0±0.2	43.9±0.3	10.4±0.2
Alcoholic	45.2±0.3	10.9±0.2	45.2±0.4	10.9±0.3
Manic-depressive	37.7±0.3	14.5±0.2	35.1±0.3	13.0±0.2
Dementia praecox	40.0±0.1	11.6±0.1	31.6±0.2	10.8±0.1
All psychoses	44.2±0.1	18.2±0.1	43.7±0.2	18.1±0.1

First admissions who were natives of New York State had a slightly higher average age than those born in other States, though the difference is not statistically significant. They had equivalent averages in general paresis and the alcoholic psychoses. They had higher averages with respect to psychoses with cerebral arteriosclerosis, manic-depressive psychoses and dementia praecox. Were the first admissions drawn randomly from the parent populations, it is therefore probable that the general population of native whites born in New York State was slightly older than that born in other States. This would tend to raise the rate of first admissions, since such rates increase with age. On the other hand, it is highly probable that the population born in New York State includes a higher proportion in the very young age groups (i.e., those under 15 years of age). This would tend to reduce the average rate of first admissions for the group, since rates of first admissions are lowest at the youngest age levels. However, when we balance the probable youthful proportion in the indigenous population against that in the older age groups, and consider the great excess in the average rate

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of the migratory group, it does not appear likely that age differentials could account for the great disparity in rates of first admission shown above.

The rates are also influenced by the urban-rural distributions of the two groups. Urban rates of first admissions exceed rural rates. It is probable that the migrant group includes a higher proportion of urban dwellers than the indigenous population. In the absence of the essential census data, we are again unable to introduce necessary statistical corrections. However, we are able to approximate a constant distribution with respect to environment by a consideration of rates of first admissions among native-born negroes in New York State.[7] The negro population is concentrated very heavily in New York City, which included 79 per cent of the total negro population of the State. In comparing negroes born in New York State with those born in other parts of the United States, the difference in environmental distribution is therefore largely eliminated. The indigenous group, however, had an average annual rate of first admission of 40.0, the migratory group a rate of 186.2. The latter is in excess in the ratio of 4.7 to 1. Obviously, therefore, the differences in rates of mental disease between the indigenous and migratory populations cannot be explained as statistical artifacts, arising from differential distributions with respect to age or environment. The true rates among the migratory and native white group may be in a ratio less than that indicated by the 'crude' rates, but it is hardly likely that the difference could be eliminated by statistical adjustments.

We must conclude, therefore, that the resident white population of New York State born in that State had lower rates of first admissions than the resident population born in other States. As noted previously, the former group should have had higher rates (other things being equal), since it includes a relatively higher proportion of natives of foreign or mixed parentage. The lower rates must therefore be attributed to the generally more favorable circumstances of life surrounding the indigenous population, as contrasted with a migrating population.

[7] "Migration and Mental Disease Among Negroes in New York State," *American Journa of Physical Anthropology*, Vol. 21, No. 1, January, 1936.

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